State of California
Department of Industrial Relations

Memorandum

To : Marley Hart, Executive Officer
Occupational Safety & Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

Date: November 21, 2012

From : Ellen Widess, Chief EWidess
Division of Occupational Safety and Health

Subject : Division Evaluation of Petition
Robert Jungers, Union Safety Rep./Certified Miners Rep.

This memorandum is written in response to the petition received by the Occupational Safety and Health Standards Board (Board) on July 16, 2012, regarding the application of Robert Jungers, to amend Title 8, California Code of Regulations, General Industry Safety Orders, Section 3314, energy control procedures.

Labor Code Section 142.2 permits interested persons to propose new or revised standards concerning occupational safety and health, and requires the Board to consider such proposals, and render a decision no later than six months following receipt. Further, as required by Labor Code Section 147, any proposed occupational safety or health standard received by the Board from a source other than the Division must be referred to the Division for evaluation, and the Division has 60 days after receipt to submit a report on the proposal.

The Division has prepared this memorandum as an evaluation of the petition.

Actions Requested by the Petitioner

The petitioner would like to add a subsection in the regulation mentioned above, which would require a supervisor to verify effective implementation of lockout/tagout procedures prior to employee use.

Existing Relevant Title 8 Regulations

Subchapter 7. General Industry Safety Orders
Group 2. Safe Practices and Personal Protection
Article 7. Miscellaneous Safe Practices

Section 3314. The Control of Hazardous Energy for the Cleaning, Repairing, Servicing, Setting-Up, and Adjusting Operations of Prime Movers, Machinery and Equipment, Including Lockout/Tagout.

(h) Periodic inspection.

The employer shall conduct a periodic inspection of the energy control procedure(s) at least annually

to evaluate their continued effectiveness and determine necessity for updating the written procedure(s).

(1) The periodic inspection shall be performed by an authorized employee or person other than the one(s) utilizing the hazardous energy control procedures being inspected.

(2) Where lockout and/or tagout is used for hazardous energy control, the periodic inspection shall include a review between the inspector and authorized employees of their responsibilities under the hazardous energy control procedure being inspected.

(3) The employer shall certify that the periodic inspections have been performed. The certification shall identify the machine or equipment on which the hazardous energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

The section above addresses the necessity of the supervisor to conduct periodic inspections to evaluate the continued effectiveness of the lockout/tagout procedure. Section (h) addresses the Applicant's concern about the supervisor's verification of the effective implementation of lockout/tagout procedures.

(j) Training.

(1) Authorized employees shall be trained on hazardous energy control procedures and on the hazards related to performing activities required for cleaning, repairing, servicing, setting-up and adjusting prime movers, machinery and equipment.

(2) Each affected employee shall be instructed in the purpose and use of the energy control procedure.

(3) All other employees whose work operations may be in an area where energy control procedures may be utilized, shall be instructed about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

(4) Such training shall be documented as required by Section 3203.

Section (j) above requires that employees shall be trained on the lockout/tagout procedures and that it needs to be documented. Training is a very important aspect of preventing accidents related to lockout/tagout procedures and verifying the effectiveness of the lockout/tagout procedure.

Other Relevant Regulations and Guidelines

The comparable federal regulation is 29 CFR 1910.147. The most recent update to the Cal/OSHA Standard was in 2005 in which the Division's Form 9 requested the Board to update terminology used in the title and body of Section 3314 for consistency with Federal OSHA and with common usage in the workplace. The Division also requested the Board to require specific procedures and instructions to be developed for specific machines or pieces of equipment, to ensure that employers and employees would not depend on "boilerplate" language commonly seen in written hazardous energy control procedures. Furthermore, the Division requested the Board to add a vertical training requirement for equivalence with the Federal OSHA standard.

Currently there are not substantial differences between the California State regulation and its Federal counterpart.

ANSI also has a consensus standard on this subject cited in ANSI/ASSE Z244.1. Section 3.1.2 of the previously mentioned ANSI Standard, states that testing shall be done to determine the effectiveness of the lockout/tagout program. Under Section 4, the Employer shall have a pre-planning phase to identify the energy sources and related exposures by conducting a physical inspection coupled with drawings, prints and equipment manuals. Under section 5.1.4 the lockout/tagout sequences when complex or other conditions warrant shall be reviewed by an authorized individual. The ANSI Standard coordinates with the requirements of Title 8, California Code of Regulations in which a authorized person and/or supervisor shall substantiate the effectiveness of the lockout/tagout procedure before an employee can use it.

Division's Experience

The Division has investigated the petitioner's statements regarding the hazards alleged at the workplace mentioned by the petitioner, most recently in an inspection opened on July 16, 2012 (Inspection # 316276849). The Division did not find evidence that energy control procedures in this establishment violated Section 3314, or that incidents had occurred which endangered employees due to a failure of these procedures.

Discussion

The petitioner is concerned that the computer generated isolations are not effectively verified prior to work being performed, and that has resulted in isolations that are "incorrect most of the time." The Division has had extensive discussion with the petitioner, who confirmed that his concern is that a supervisor, rather than a non-supervisory employee should have the responsibility to verify isolations.

The standard currently requires the employer to have effective procedures to control hazardous energy, which include the testing of the equipment or machine to verify the effectiveness of the procedure. Section 3314(h) requires the employer to conduct periodic inspections of the energy control procedure(s) at least annually to evaluate their continued effectiveness, and requires the inspections to be documented. Section 3314(g)(1) also requires the employer to have a written Hazardous Energy Control Procedure which states the steps for locking or tagging out each machine and the requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other hazardous energy control devices . The existing regulation also addresses the requirement for training each authorized employee in the hazard energy control procedures and the hazards related to the job function [Reference T8 CCR GISO Section 3314(j)].

The Applicant states that this issue has been raised to management/supervisory representatives of the company, Mine Safety and Health Administration (MSHA), and National Labor Relations Board (NRLB) which did not produce any change.

Conclusion

Section 3314 was amended in 2005 after an advisory committee process. The Division has not found evidence that the current standard, when followed, is insufficient to protect employees. Therefore the Division does not recommend adoption of the petition at this time.

cc: Amit Gupta, Senior Safety Engineer, DOSH Research & Standards
Patrick Bell, Principal Safety Engineer, DOSH Research & Standards
Deborah Gold, Deputy Chief of Health, DOSH Headquarters
Steve Hart, Principal Safety Engineer, DOSH Mining & Tunneling

Attachment 1

Title 8, California Code of Regulations, Section 3314

Subchapter 7. General Industry Safety Orders
Group 2. Safe Practices and Personal Protection
Article 7. Miscellaneous Safe Practices

Section 3314. The Control of Hazardous Energy for the Cleaning, Repairing, Servicing, Setting-Up, and Adjusting Operations of Prime Movers, Machinery and Equipment, Including Lockout/Tagout.

(a) Application.

(1) This Section applies to the cleaning, repairing, servicing, setting-up and adjusting of machines and equipment in which the unexpected energization or start up of the machines or equipment, or release of stored energy could cause injury to employees.

(2) For the purposes of this Section, cleaning, repairing, servicing and adjusting activities shall include unjamming prime movers, machinery and equipment.

(3) Requirements for working on energized electrical systems are prescribed in Sections 2320.9 or 2940.

(b) Definitions:

Affected employee. For the purpose of this section, an employee whose job requires them to operate or use a machine or equipment on which cleaning, repairing, servicing, setting-up or adjusting operations are being performed under lockout or tagout, or whose job requires the employee to work in an area in which such activities are being performed under lockout or tagout.

Authorized employee or person. For the purposes of this section, a qualified person who locks out or tags out specific machines or equipment in order to perform cleaning, repairing, servicing, setting-up, and adjusting operations on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties including performing cleaning, repairing, servicing, setting-up and adjusting operations covered under this section.

Locked out. The use of devices, positive methods and procedures, which will result in the effective isolation or securing of prime movers, machinery and equipment from mechanical, hydraulic, pneumatic, chemical, electrical, thermal or other hazardous energy sources.

Normal Production Operations. The utilization of a machine or equipment to perform its intended production function.

Prime Mover. The source of mechanical power for a machine.

(c) Cleaning, Servicing and Adjusting Operations.

Machinery or equipment capable of movement shall be stopped and the power source de-energized or disengaged, and, if necessary, the moveable parts shall be mechanically blocked or locked out to prevent inadvertent movement, or release of stored energy during cleaning, servicing and adjusting operations.

Accident prevention signs or tags or both shall be placed on the controls of the power source of the machinery or equipment.

(1) If the machinery or equipment must be capable of movement during this period in order to perform the specific task, the employer shall minimize the hazard by providing and requiring the use of extension tools (e.g.: extended swabs, brushes, scrapers) or other methods or means to protect employees from injury due to such movement. Employees shall be made familiar with the safe use and maintenance of such tools, methods or means, by thorough training.

(d) Repair Work and Setting-Up Operations.

Prime movers, equipment, or power-driven machines equipped with lockable controls or readily adaptable to lockable controls shall be locked out or positively sealed in the "off" position during repair work and setting-up operations. Machines, equipment, or prime movers not equipped with lockable controls or readily adaptable to lockable controls shall be considered in compliance with Section 3314 when positive means are taken, such as de-energizing or disconnecting the equipment from its source of power, or other action which will effectively prevent the equipment, prime mover or machine from inadvertent movement or release of stored energy. In all cases, accident prevention signs or tags or both shall be placed on the controls of the equipment, machines and prime movers during repair work and setting-up operations.

Exceptions to subsections (c) and (d):

1. Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations are not covered by the requirements of Section 3314 if they are routine, repetitive, and integral to the use of the equipment or machinery for production, provided that the work is performed using alternative measures which provide effective protection.

2. Work on cord and plug-connected electric equipment for which exposure to the hazards of unexpected energization or start up of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the work.

3. Where an employer has a uniform system with unique and personally identifiable locks designed for lockout, that are placed on the source of energy, accident prevention signs or tags are not required.

(e) Materials and Hardware. The employer shall provide accident prevention signs, tags, padlocks, seals or other similarly effective means which may be required for cleaning, servicing, adjusting, repair work or setting-up operations. Signs, tags, padlocks, and seals shall have means by which they can be readily secured to the controls. Tagout device attachment means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds.

(f) Repetitive Process Machines. On repetitive process machines, such as numerical control machines, which require power or current continuance to maintain indexing and where repair, adjustment, testing, or setting-up operations cannot be accomplished with the prime mover or hazardous energy source disconnected, such operations may be performed under the following conditions:

(1) The operating station where the machine may be activated must at all times be under the control of a qualified operator or craftsman.

(2) All participants must be in clear view of the operator or in positive communication with each other.

(3) All participants must be beyond the reach of machine elements which may move rapidly and present a hazard to them.

(4) Where machine configuration or size requires that the operator leave his control station to install tools, and where machine elements exist which may move rapidly if activated, such elements must be separately locked out by positive means.

(5) During repair procedures where mechanical components are being adjusted or replaced, the machine shall be de-energized or disconnected from its power source.

Note: "Participant" shall mean any other person(s) engaged in the repair, adjustment, testing, or setting up operation in addition to the qualified operator or craftsman having control of the machine operating station.

(g) Hazardous Energy Control Procedures. A hazardous energy control procedure shall be developed and utilized by the employer when employees are engaged in the cleaning, repairing, servicing, setting-up or adjusting of prime movers, machinery and equipment.

(1) The procedure shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance, including but not limited to, the following:

(A) A statement of the intended use of the procedure;

(B) The procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy;

(C) The procedural steps for the placement, removal and transfer of lockout devices and tagout devices and responsibilities; and,

(D) The requirements for testing a machine or equipment, to determine and verify the effectiveness of lockout devices, tagout devices and other hazardous energy control devices.

(2) The employer's hazardous energy control procedures shall be documented in writing.

(A) The employer's hazardous energy control procedure shall include separate procedural steps for the safe lockout/tagout of each machine or piece of equipment affected by the hazardous energy control procedure.

Exception to subsection (g)(2)(A): The procedural steps for the safe lockout/tagout of prime movers, machinery or equipment may be used for a group or type of machinery or equipment, when either of the following two conditions exist:

(1) Condition 1:

(A) The operational controls named in the procedural steps are configured in a similar manner, and

(B) The locations of disconnect points (energy isolating devices) are identified, and

(C) The sequence of steps to safely lockout or tagout the machinery or equipment are similar.

(2) Condition 2: The machinery or equipment has a single energy supply that is readily identified and isolated and has no stored or residual hazardous energy.

(h) Periodic inspection.

The employer shall conduct a periodic inspection of the energy control procedure(s) at least annually to evaluate their continued effectiveness and determine necessity for updating the written procedure(s).

(1) The periodic inspection shall be performed by an authorized employee or person other than the one(s) utilizing the hazardous energy control procedures being inspected.

(2) Where lockout and/or tagout is used for hazardous energy control, the periodic inspection shall include a review between the inspector and authorized employees of their responsibilities under the hazardous energy control procedure being inspected.

(3) The employer shall certify that the periodic inspections have been performed. The certification shall identify the machine or equipment on which the hazardous energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

(i) Whenever outside servicing personnel are to be engaged in activities covered by this section, the on-site employer's lockout or tagout procedures shall be followed.

(j) Training.

(1) Authorized employees shall be trained on hazardous energy control procedures and on the hazards related to performing activities required for cleaning, repairing, servicing, setting-up and adjusting prime movers, machinery and equipment.

(2) Each affected employee shall be instructed in the purpose and use of the energy control procedure.

(3) All other employees whose work operations may be in an area where energy control procedures may be utilized, shall be instructed about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

(4) Such training shall be documented as required by Section 3203.